

CONSERVING POWER OF A SYSTEM ON A CHIP USING AN ALTERNATE  
POWER SOURCE

ABSTRACT OF THE DISCLOSURE

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A method for conserving battery power for a battery-optimized system-on-a-chip begins by sensing for presence of an alternate power source. The processing continues, when the presence of the alternate power source is detected, a first control loop of a first DC-to-DC converter is disabled and a second control loop of a second DC-to-DC converter is enabled to produce a supply voltage for the system-on-a-chip. The first DC-to-DC converter, when enabled, converts a battery voltage into a supply voltage and the second DC-to-DC converter, when enabled, converts voltage from the alternate power source into the supply voltage.